Lewis and rostow

Outline the theories of Lewis and Rostow and discuss their relevance in analysing the problems of development in LDC's In the 1950's, the two most prominent economists of the Western school were Arthur Lewis and Walt W. Rostow. Their theories had a significant impact on the policies of Western governments regarding development in LDC's. Arthur Lewis claimed he was a classical economist because he disagreed with the neo-classical school. He argued that the neo-classical assumption of full employment is incorrect in the long-run, and that they therefore had no long-term perspective on development.

However, Lewis has been categorised by other economists such as Hollis B. Chenery, as a Structuralist. This is because his famous ' two-sector model' focuses in the mechanisms through which LDC's can change their economic infrastructure from an agricultural to a more modern industrial one. 1 The emphasise on internal modes of production and reform of domestic infrastructure is a distinguishing feature of the Structuralists. In the mid 1950's Lewis, in his essay ' Economic Development with unlimited supply of Labour' put forward his theory of underdevelopment.

He begins with the assumption that the economy of the LDC's could be split into two sectors; the traditional sector, which is agrarian, and characterised by subsistence wages and a surplus of labour. Lewis referred to this as ' disguised unemployment'. Because of the large labour force in the traditional sector, much of it unused, this results in zero marginal labour productivity. Wages are therefore kept at subsistence levels, which causes wages in the modern sector to be set at subsistence level. The modern sector is characterised as a highly productive, urban, industrial sector.

Lewis argues that surplus labour in the traditional sector can be gradually transferred to the modern sector with no loss to productivity because of the zero marginal productivity of labour in agriculture. To encourage the flow of labour from the traditional to the modern sector Lewis allows for a 30% differential in income. Once the modern sector reaches full employment output is increased. The increase is determined by the rate of investment and capital accumulation (this is assuming that excess profits are re-invested).

Thus the demand for labour will once again increase and with the 30% premium over traditional sector wages, supply curve of labour from the traditional to modern sector is perfectly elastic. The ‘ two-sector’ model of development demonstrates the process of labour transfer and the growth of employment and production in the modern sector. The top right diagram represents production in the traditional sector. Total product (TPA) is the function of variable labour (LA), fixed capital (KA) and traditionaltechnology(tA): TPA = f (LA, KA, tA).

In the bottom right diagram we have the average and marginal product of labour curves, which are derived from the total product curve in the diagram directly above it. There are two assumptions made; firstly, the marginal product of labour is zero (MpLA at LA), hence there is surplus labour. Secondly, wages are divided equally in the traditional sector so it is the average, and not the marginal product of labour determines the real wage. 2 ? The diagram on the top left represents production in the modern sector.

Again, the total product (TPM) in this sector is a function of the variable input labour (LM), a given capital input (KM), and modern technology (tM): TPM = f

(LM, KM, tM). The model demonstrates that at if labour is at L1, and capital stock at KM1, then output will be TPM1. Lewis allows for the re-investment of excess profits in the modern sector, which will increase capital stock from KM1 to KM2 and then to KM3. This results in an increase in the demand for labour (from L1, to L2, then L3), and an increase in output for the sector (from TPM1, to TPM2, and then TPM3).

We can see also that the total product curves rise in accordance to the increase in capital stock and labour. The process by which capital stock and total product will increase is demonstrated in the bottom left diagram. WA is the subsistence wage level offered by the traditional sector. With a 30% premium over the traditional wage rate, wages for the modern sector is at WM. Lewis assumes that the supply of labour is perfectly elastic and will remain so throughout the development process, hence the horizontal labour supply curve.

Employers will hire at this wage rate without the possibility of wages rising. Because capital stock (KM1) is fixed in the initial stage of growth, demand curve for labour is determined by labours declining marginal product3, the negatively sloped curve D1 (KM1). Employers in the modern sector are assumed to hire to where the marginal physical product of labour is equal to the real wage, so employment will be at L1. Area OWMFL1 represents wages for this sector, and profits are shown by area WMD1F. Lewis assumes that these profits will be re-invested, so the capital stock now increases from KM1 to KM2.

This will increase total product in the modern sector, inducing higher demand for labour. The new equilibrium is now at point G with L2 workers in the bottom left diagram. The same process will once again occur, increasing capital stock to KM3, total product of labour to TPM(KM3), and employment in the modern sector to L3. According to the Lewis hypothesis, this process will continue until all surplus labour is absorbed into the new modern sector. The declining labour to land ratio will increase the marginal productivity of labour above zero, causing the labour supply curves to become positively sloped.

So wages and employment will continue to grow, and the domestic structure of the economy is changed, allowing for the growth of a modern, urban, industrial sector. The Lewis two-sector model draws on the experience of economic development in the West, but he makes a number of key assumptions that are not plausible to developing countries in this day and age. Firstly, Lewis assumes that the increase in employment in the modern sector is proportional to its rate of profit. (This is on a further assumption that all profits are infact re-invested).

In reality it is a common trend for Trans-National Companies (TNC’s) to employ increasing levels of capital and technology, while keeping labour at the same level. Lewis also assumes that there is surplus labour in agriculture and full employment in the modern sector. This is infact untrue, and the opposite is more common in most LDC’s. Also, research suggests that unemployment is not as high as Lewis estimated (around 50%) but is more accurately around the 5% mark. The assumption of an infinitely elastic labour has also been subject to criticism.

Empirically labour will experience some rise in wages, so the labour supply curve will not remain flat. Lewis makes some politically incorrect assumptions. He argues that farmers will get richer during the development process due to an increasing demand forfoodfrom a growing urban population. He suggests that farmers should be taxed and themoneyshould be invested in urban areas. So he advocated the taxing of people on subsistence wage levels, to help the capitalist class! He also advocated the curbing of trade union power during evelopment, and to protect the growth of the capitalists using tariffs (this was undoubtedly very unpopular with the Marxists). The two-sector model emphasises the need to increase money supply in order to kick-start the development process. We know that in the real world this could lead to inflation, speculation and balance of payment problems. Lewis does acknowledge these possibilities in his article, but he does not explain how the loans themselves can be bad. He places a high degree of importance on a capitalist class who would bring about an outflow of profits, but does not explain from where the new class will emerge.

Despite all of these flaws in the two-sector model, Lewis was nonetheless awarded the Nobel Prize for Economics for his endeavours. In 1960, the US economist and historian Walt Whitman Rostow published his paper ‘ The Stages of Economic Development’. He claimed he was providing an alternative to the Marxist view of history, and thus gave his paper the subtitle; ‘ a non-communist manifesto’. Rostow analysed the process of development in the West and concludes that it is possible to distinguish development into stages; and all societies can be categorised into one of the five stages he distinguishes.

In order to develop LDC’s are required to progress through these stages. The five stages are as follows: The traditional society, transitional (or preconditions to take-off), take-off, maturity and high-mass consumption. 4 A traditional society is the most basic form of society. It does little more than economically survive. Production is used for self-consumption and there is no trade. It would usually have a ceiling on production due to limitations ofscienceand backward production practices. There is generally a high proportion of the workforce in agriculture (> 75%), little social change, and large divisions of wealth. In the transition stage agriculture will begin to prevail, mainly due to foreign interests. Rostow argues that the level of investment must be raised to at least 10% of national income, ensuring self-sustaining growth. The bulk of investment should be spent on infrastructure, like transport andcommunicationif society is to progress to the next stage. He states that society must also be willing to operate closer to factory principles and the division of labour, and a new elite must emerge that will drive the factory process. It is generally accepted that entrepreneurs usually appear in commerce.

Rostow and others acknowledge that society may be in this stage for centuries. To propel society from transition to take-off growth must become self-sustaining. Rostow predicts that investment must rise in excess of 10% of national income in order to guarantee adequate levels of future savings and investment. 6 What is significant in this stage is the emergence of major export industries (what Rostow calls ‘ leading growth sectors’). In the US and Russia this would have been the grain industry, in Britain the textiles industry, in Sweden, timber etc.

So the industry itself differs from country to country, and Rostow makes clear that LDC’s do not have to produce the same goods as developed nations in order to ‘ take-off’. In the stage of maturity society will apply a wide range of new technology to most of its resources. In this period a nation will grow confident and exert itself. It will also have to make a choice at this point as to what it should spend its new found wealth on. Either to move towards high-mass consumption, to build a welfare state, or to meet imperialist ends.

The stage of high-mass consumption, Rostow argues, applies only to the US, as at the time of writing (1956) no other society had achieved this. Based on his theory Rostow, Rosenstein and Rodon came up with a 5-year plan for LDC’s following the Western ideology of development. The 5-year plans were largely unsuccessful, not to mention controversial. At the height of thecold warthe US funded any tin-pot dictator who was not allied with the USSR, under the guise of aid for development. There are several issues in Rostows theory that has received criticism.

Firstly, he negates the multiplier process, and refers to it as ‘ backward lineage’. He also ignores foreign exchange constraints, like the cost of importing machinery. His single minded pursuit of capital has led to ‘ wide elephant’ projects by the UN, which have caused a lot of damage to theenvironmentand brought very little benefit to LDC’s. Also, concentration on capital intensive goods makes things worse. It deprives consumption, gives rise to demand, which makes increases in demand for capital goods inevitable. Simon Kuznets points out that there is no distinction between stages 2 and 3, and also 3 and 4.

The characteristics that Rostow distinguishes are not unique to those phases. For example, the changes that occur during transition also seem to occur during take-off. In Kuznets own words: “ It seems to me that Rostow defines these social phenomena as a complex that produces the effect he wishes to explain and then treats his identification as if it were a meaningful identification” 7 The main problem with Rostow’s theory is his political bias. This is not surprising if we take into account the historical and political conditions in which the theory was created (the cold war, McCarthyism).

Rostow wanted to provide a Western, capitalist ideology of development. The neo-Marxists point out that LDC’s are very different from each other, and we cannot ignore the historical context in which they were created as Rostow does. The centuries of colonialism still have an effect on LDC’s today and to ignore this is wrong. The neo-Marxists argue that the History of LDC’s is littered with aborted ‘ take-offs’ and ‘ crash landings’, which have left them with distorted development and dependency. Both Lewis and Rostow tend to indicate that development is a purely domestic issue, and that obstacles to growth are all internal.

They emphasise on savings and investment, and do not take into account the many external forces that can stimulate or hinder growth, such as political and economic pressure from TNC’s and the WTO. They make no attempt to explain ideas suggested by the Prebisch-Singer thesis, or to reconcile Emmanuel’s theory of ‘ Unequal Exchange’. Overall, both economists imply that growth and development are solely in the hands of the developing countries, trivialising the dominance and significance of the West in the development process.